Assessment of Clients' Perceived Satisfaction and Responsiveness of Outpatient Health Care Services Within the National Health Insurance Scheme at University of Nigeria Teaching Hospital, Enugu State, Nigeria

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Abstract

Client satisfaction with health service provision within the health insurance schemes are crucial to guide policy and decision making. Further on, the achievement of universal health coverage within the health insurance scheme in Nigeria requires evaluating the extent to which the expectations of those who have utilized health-care services, are met. This study was designed to assess NHIS-enrollees' satisfaction and the responsiveness of outpatient health care services provided under the NHIS at UNTH, Enugu. This cross sectional descriptive study was carried out between July and September 2018. Data on enrollee's satisfaction was collected using the standardized Patient Satisfaction Questionnaire, and data on responsiveness was collected using the questionnaire from a responsiveness survey designed by the WHO. The results show that of the 368 NHIS-enrollees in the survey, 269 (73.1%) were satisfied with the services they received and 190 (51.6%) respondents considered the services to be responsive to their needs, with 'choice of provider' and 'autonomy' ranking the least in domain of service. The factors independently associated with dissatisfaction with the NHIS services at UNTH (at $p<0.05$) include: having a family size of ≤ 4, having worked for 10 – 19 years in the civil service, and having >4 dependents. The factors independently associated

with non-responsiveness of services within the NHIS at UNTH (at $p<0.05$) were: male gender, rural residence, having attended the UNTH twice or thrice, and having worked in the civil service for <10 years or for 10 – 20 years. This study concludes that a high proportion of NHIS-enrollees were satisfied with outpatient services within the NHIS; however, NHIS outpatient services were responsive to the needs of only half of the enrollees. It is recommended that poorly performing domains of services are strengthened, especially ‘choice of provider’ and ‘autonomy’; and that factors associated with non-satisfaction and non-responsiveness of outpatient services offered within the NHIS be addressed by orientation, training and local policy solutions.

Keywords: Client Satisfaction, Responsiveness, National Health Insurance Scheme, NHIS

Introduction

In the last decade, socially oriented National Health Insurance Schemes (NHIS) have been implemented in low and medium income countries (LMICs) (Alshamsan, Lee, Rana, Areabi & Millett, 2017; Stenberg, Hanssen, Edejer, Bertram, Brindley, Meshreky, A. *et al.*, 2017). These health insurance schemes are now widely recognized as alternative means to ensuring an effective and efficient health system and to deliver UHC for people in LMICs (Santos, Oliveira, Trindade, Barreto, Palmeira, Comes *et al.*, 2017). However, several studies have shown that when countries embark on large-scale reforms of their health systems, periodic monitoring and evaluation are fundamental processes that are carried-out to ensure the achievement of the initial objectives of reform (Hogan, Stevens, Hosseinpoor & Boerma, 2018).

The Nigeria NHIS was established under Act 35 of 1999 by the Federal Government of Nigeria (NHIS, 2005; Uzochukwu, Ughasoro, Etiaba, Okwuosa, Envuladu & Onwujekwe, 2015). The Nigeria NHIS aims to provide health insurance which entitles insured-users and their dependants to good quality and cost-effective healthcare services (NHIS, 2008; Uzochukwu *et al.*, 2015). With an expansion strategy to achieve universal coverage, the NHIS has been divided into broad programmes including: formal sector, informal sector, vulnerable groups and others e.g., retirees and unemployed (NHIS, 2008). In 2005, the NHIS was introduced into all federal establishments in Nigeria through the formal sector social health insurance programme (FSSHIP). The first phase of implementation covers only federal civil servants. The scheme is in the second phase of implementation, extending to include states’ civil servants and the informal sector (NHIS, 2008; Uzochukwu *et al.*, 2015). The FSSHIP covers formal sector employees, including federal, state, and local governments, and organized private institutions with at least 10 employees (NHIS, 2005; Uzochukwu *et al.*, 2015).

The Nigerian NHIS aims to create access to good quality and cost-effective healthcare services, however, it has been reported that insured-persons have complained of service providers with poor attitudes (Mohammed, Sambo & Dong 2011). In addition, due to inadequate knowledge or outright ignorance, new people-oriented programmes such as the NHIS in Nigeria may encounter criticisms and objections which may affect its uptake in the population. Therefore, the success of the NHIS would be determined to a great extent by its wide acceptability which in itself is subject to the level of knowledge of the scheme and satisfaction with the services rendered to enrollees.

Several studies have evaluated users' satisfaction with public and private health care services in Nigeria (Iliyasu *et al*., 2010; Iloh *et al*., 2013; Osiya *et al.,* 2017). However, few studies have evaluated client satisfaction in the context of Nigeria NHIS (Osungbade *et al.,* 2014; Adewale *et al*., 2016; Daramola *et al.,* 2017), and its determinants (Mohammed *et al*., 2013). It is essential to consider how policy interventions such as the NHIS have influenced the barriers to health care utilization, which not only included geographical access, but also perceived quality of care and access to information. As well, measures of health system effectiveness should be aligned with improvements in access to quality of care and client satisfaction (Mohammed *et al*., 2013).

Furthermore, few studies have evaluated the responsiveness of health care services to users' expectations in Nigeria (Ughasoro *et al.*, 2017), and specifically as an outcome indicator of the performance of the NHIS (Mohammed *et al*., 2013). In addition, only few studies have specifically examined responsiveness domains in the context of evaluating the performance of health services in LMICs (Peltzer & Phaswana-Mafuya, 2012; Topp & Chipukuma, 2016). It is essential to consider how the NHIS has impacted the barriers to health care utilization, perceived quality of care and access to information. For effective policy making, there is also need to elucidate the factors influencing the users' perspectives on the responsiveness of health care services in the context of the NHIS in order to improve the performance of the health system.

In Enugu, there is scarcity of information on enrollees' satisfaction and responsiveness of health services provided under the NHIS. Although Achukwu (2015) assessed the satisfaction with healthcare services provided under the NHIS to employees of the UNTH Enugu; their level of satisfaction with some of the measures (e.g. waiting times) may be influenced by prior contact and knowledge of the healthcare providers. Thus, there was need to assess enrollees' satisfaction and responsiveness of outpatient healthcare services provided under NHIS to formal sector workers in various ministries, parastatals and agencies accessing care in UNTH Enugu. Therefore, this

study's objective is to assess enrollees' satisfaction and the responsiveness of outpatient health care services provided under the National Health Insurance Scheme at UNTH, Enugu, Nigeria.

The findings of this study reveal the level of satisfaction of enrollees' of the NHIS in Nigeria with the quality of and responsiveness of outpatient health services they received in UNTH, Enugu. It also provides information for policy and decision makers in health institutions on areas to undertake midcourse corrections in the implementation of various health insurance schemes. Periodic patient satisfaction and responsiveness surveys also provide feedback and evidence to guide the Federal Ministry of Health of Nigeria as well as heads of tertiary hospitals and staff regarding the quality of services rendered to the users. Furthermore, the findings of this study will also benefit the enrollees in that their evaluation of the services rendered will help healthcare providers to understand what aspects of care that really satisfies them and areas needing improvement. This study adds to the existing knowledge and inform further research in an area that has been poorly investigated in Nigeria.

Methods:

The study was conducted in Enugu, Southeast of Nigeria. Enugu State lies on longitude 7.32°E and latitude 6.45°N of the equator. Data based on the 2006 population census shows that Enugu has a population of 3,257,298 people (NPC, 2006). This quantitative study was a descriptive, cross-sectional study used to obtain information on satisfaction and responsiveness of health care services within the National Health Insurance Scheme (NHIS) in UNTH, Enugu. UNTH Enugu is one of four public sector tertiary hospitals in the State; and the study was conducted at its general and medical outpatient clinics. All NHIS enrollees for one year and above that chose UNTH, Enugu as their preferred health care provider and who came to access health services within the period of study (July – September 2018) constitute the study population. The sample size of 370 was determined by the application of the power analysis formula; and systematic random sampling was used to recruit eligible study participants at the study facility.

The data was collected using a pre-tested interviewer-administered questionnaire which was administered to eligible patients. The questionnaire for this study had four sections (Section A-D). Section A consisted of socio-demographic and contextual characteristics of the respondents. Section B contained questions on general knowledge of the NHIS. Section C contained questions on patients' satisfaction with health services, adapted from the Patient Satisfaction Questionnaire (PSQ 18) by Marshalls and Hays (1994). Section D contained questions on enrollees perceived responsiveness of the health services, adapted from the responsiveness questionnaire designed by

the WHO for measuring health system performance and used for the World Health Survey (WHO, 2017).

Data analyses were carried-out using the SPSS 24.0 for windows. For assessment of client satisfaction using the five-point Likert scale questions in Section C, overall satisfaction was derived from a composite score of the questions and an item with a score of ≥ 3 signified that the enrolees were satisfied with it while any item that scored less than 3 signified that the enrolees were dissatisfied with it. For responsiveness assessment, proportions of the respondents that perceived each domain to be good or bad were summarised and domain score ≥ 3 signified that the enrolees perceived the domain to be good (responsive) on the assumption that each domain is equally important in assessing responsiveness of a health system. All categorical variables were reported as frequencies and proportions, while continuous variables were summarized using mean ± standard deviation (SD). Chi-Square test was performed to compare categorical variables. Multivariable logistic regression analyses were carried out to identify independent predictors of unsatisfaction with and non-responsiveness of services offered. In all cases, p-value <0.05 was considered statistically significant.

Ethical approval for this study was obtained from the Health Research and Ethics Committee of the UNTH, Ituku-Ozalla, and permission was obtained from the Head of Departments/units of the general and medical outpatient clinics. All selected respondents gave an informed written consent to be included in the study and participants' privacy and confidentiality was maintained.

Results:

Out of the 370 questionnaires administered, 368 were valid for analysis giving a response rate of 99.5%. The results are presented in Tables 1 to 8:

Table 1: Socio-demographic characteristics of respondents (n=368)

Variable	Frequency	Percentage (%)
Age group (years)		
≤30	13	3.5
31-40	148	40.2
41-50	143	38.9
51-60	56	15.2
≥60	8	2.2
Mean age (± Standard deviation)	40.9 (7.8)	
Gender		
Female	206	56.0
Male	162	44.0
Marital status		
Single	79	19.0
Married	265	72.0
Divorced/Separated	26	7.1

Widowed	7	1.9
Religion		
Christian	358	97.3
Islam	8	2.2
Others	2	0.5
Education		
Primary	4	1.1
Secondary	48	13.0
Tertiary	316	85.9
Residence		
Rural	61	16.6
Urban	307	83.4
Family size		
≤ 4	239	64.9
> 4	129	35.1
Household Income (Naira)		
≤ 100, 000	115	31.3
> 100, 000	253	68.8

The sociodemographic characteristics of the respondents are as shown in Table 1. A total of 368 enrolees completed the survey. The mean age (standard deviation) of the participants was 40.9 (7.8) years. A total of 265 (72.0%) of the clients were married, 79 (19.0%) were single and 358 (97.3%) were Christians. Majority of the clients either had tertiary 316 (85.9) or secondary 48 (13.0) education. Most of the clients' 307 (83.4%) resided in the urban area, and 239 (64.9%) reported a having a family size of four or less. Overall, the household income of most of the respondents 253 (68.8%) was over 100,000 Naira.

Table 2: Patient characteristics and their experience (contextual factors) with NHIS (n=368)

Variable	Frequency	Percentage (%)
Duration of Enrolment in the NHIS (years)		
1	58	15.8
2	40	10.9
3	38	10.3
4	63	17.1
≥5	169	45.8
Number of hospital visits in the past 12 months		
1	55	14.9
2	96	26.1
3	111	30.2
4	49	13.3
≥5	57	15.5
Distance to the hospital		
1 hour or less	340	92.4
More than 1 hour	28	7.6

Duration of service (years)		
<10	209	56.8
10-19	111	30.2
20-29	29	7.9
≥ 30	19	5.2
Ever been referred to another NHIS facility		
No	310	84.2
Yes	58	15.8
Number of dependents		
≤4	342	92.8
>4	26	7.1
Willing to return to UNTH for medical care		
No	44	12.0
Yes	324	88.0
Willing to refer friends/relative to UNTH for NHIS services		
No	61	16.6
Yes	307	83.4
Will prefer to pay out-of-pocket for same services at UNTH		
No	239	64.9
Yes	129	35.1

As shown in Table 2, a total of 63 (17.1%) and 169 (45.8%) of the clients had been enrolled in the NHIS for four years and five years or more, respectively. Also, 111 (30.2%), 49 (13.3%) and 57 (15.5%) of the clients had visited the hospital three, four or five or more times, respectively in the past 12 months. Majority of the clients' 340 (92.4%) reported that they lived within one hour or less distance from the hospital. Furthermore, 209 (56.8%) and 111 (30.2%) of the clients had worked for less than 10 and (10-19) years in the civil service, respectively. A total of 310 (84.2%) of the client reported that they had ever been referred to another facility for NHIS services, and 342 (92.8%) reported that they had four or less dependents. Overall, 324 (88.0%) of the clients indicated that they are willing to return to UNTH for their medical care, 307 (83.4%) indicated that they are willing to refer their friend and relatives to the NHIS services within the UNTH. However, only 129 (35.1%) of the clients indicated that they will prefer to pay out-of-pocket for the same medical services they received within the NHIS services at the UNTH.

Table 3: Participants' level of Satisfaction with quality of services provided under the NHIS Services at UNTH according to their socio-demographic characteristic (n=386)

Variable	Not Satisfied n (%)	Satisfied n (%)	X^2	P -value
Total	99 (26.9)	269 (73.1)		
Age group (years)			11.78	0.019
≤30	7 (53.8)	6 (46.2)		
31-40	46 (31.1)	102 (68.9)		
41-50	31 (21.7)	112 (78.3)		
51-60	11 (19.6)	45 (80.4)		
≥60	4 (50.0)	4 (50.0)		
Gender			0.567	0.636
Female	53 (25.7)	153 (74.3)		
Male	46 (28.4)	116 (71.6)		
Marital status			3.439	0.329
Single	17 (24.3)	53 (75.7)		
Married	76 (28.7)	189 (71.3)		
Divorced/Separated	6 (23.1)	20 (76.9)		
Widowed	0 (0.0)	7 (100)		
Religion				
Christian	99 (27.7)	259 (72.3)	3.78	0.151
Islam	0 (0)	8 (100)		
Others	0 (0)	2 (100)		
Education			13.5	0.001
Primary	4 (100)	0 (0)		
Secondary	8 (16.7)	40 (83.3)		
Tertiary	87 (27.5)	229 (72.5)		
Residence			0.017	0.897
Rural	16 (26.2)	45 (73.8)		
Urban	83 (27.0)	224 (73.0)		
Family size				
≤ 4	72 (30.1)	167 (69.9)	3.60	0.058
> 4	27 (20.9)	102 (79.1)		
Household Income (Naira)				
≤ 100, 000	39 (33.9)	76 (66.1)	4.18	0.041
> 100, 000	60 (23.7)	193 (76.3)		

Table 3 summarises the satisfaction or un-satisfaction of the clients with the services received at the outpatient clinics of the UNTH according to their socio-demographic characteristics. Overall, 269 (73.1%) of the participants were satisfied with services received. Clients who were aged (51 – 60) years were more satisfied compared with those who were aged ≤30 years (80.4% vs. 46.2%; P = 0.019). There was no differences in the level of satisfaction according to gender of the patients (male vs female: 71.6% vs 74.3%; P = 0.636). Also, there were no differences in their levels of satisfaction according to the marital status (P = 0.329) and religion (P = 0.151). None of the four (0%) clients with primary education was satisfied with the services received,

compared to 83.3% and 72.5% among clients with secondary and tertiary education, respectively (P = 0.001). There was no gender difference in the level of satisfaction according to residence of the clients (rural vs urban: 73.8 vs 73.0%; P = 0.897). A higher proportion of clients whose family size was more than four were satisfied compared with those with a family size of four individuals or less (79.1 vs 69.9%; P = 0.058). In addition, higher proportion of clients from household earning over 100,000 naira monthly were satisfied compared with those from household who earned 100,000 naira or less monthly (76.3% vs. 66.1%; P = 0.041).

Table 4: Participants' level of Satisfaction with quality of services provided under NHIS Services at UNTH according to their varying contextual factors (n=386)

Variable	Not Satisfied n (%)	Satisfied n (%)	X^2	P -value
Duration in the NHIS (years)			11.54	0.021
1	22 (37.9)	36 (62.1)		
2	13 (32.5)	27 (67.5)		
3	15 (39.5)	23 (60.5)		
4	15 (23.8)	48 (76.2)		
≥5	34 (20.1)	135 (79.9)		
Number of hospital visits in the past 12 months			2.94	0.568
1	16 (29.1)	39 (70.9)		
2	25 (26.0)	71 (74.0)		
3	26 (23.4)	85 (76.6)		
4	12 (24.5)	37 (75.5)		
≥5	20 (35.1)	37 (64.9)		
Distance to the hospital			0.056	0.813
1 hour or less	92 (27.1)	248 (72.9)		
More than 1 hour	7 (25.0)	21 (75.0)		
Duration of service (years)			5.65	0.13
<10	52 (24.9)	157 (75.1)		
10-19	36 (32.4)	75 (67.8)		
20-29	4 (13.8)	25 (86.2)		
≥ 30	7 (36.8)	12 (63.2)		
Ever been referred to another NHIS facility			1.35	0.264
No	87 (28.7)	233 (71.9)		
Yes	12 (20.7)	46 (79.3)		
Number of dependents			3.376	0.066
≤4	88 (25.7)	254 (74.3)		
>4	11 (42.3)	15 (57.7)		
Willing to return to UNTH for medical care				
No	29 (65.9)	15 (34.1)	38.7	<0.001
Yes	70 (21.6)	254 (78.4)		

Willing to refer friends/relative to UNTH for NHIS services				
No	37 (60.7)	24 (39.3)	42.36	<0.001
Yes	62 (20.2)	245 (79.8)		
Will prefer to pay out-of-pocket for same services at UNTH			0.005	0.94
No	64 (26.9)	175 (73.2)		
Yes	35 (27.1)	94 (72.9)		
Knowledge of NHIS			3.39	0.06
Poor	21 (36.8)	36 (63.2)		
Good	78 (25.1)	233 (74.9)		

Table 4 summarises the satisfaction or un-satisfaction of the clients with the NHIS services at UNTH according to their varying contextual factors. A higher proportion of clients who had been enrolled in the scheme for five or more years were satisfied compared with those who had been enrolled in the scheme for a year (79.9% vs.62.1%; P = 0.021). There were no differences in the level of satisfaction of the clients according to the number of hospital visits they have had in the past 12 months (p = 0.568) and the distance from their home to the hospital (P = 0.813). There were no differences in the proportion of clients who were satisfied with the services received according to their duration of working in the civil service (P = 0.13).

Also, a higher proportion of clients willing to return to UNTH were satisfied compared with those not willing to return to UNTH for their medical care (78.4 vs 34.1%; P <0.001). A higher proportion of clients who were willing to refer their friends or relatives to UNTH for care were satisfied compared with those not willing to refer them (79.8 vs 39.3; P<0.001). Overall, a higher proportion of clients with good knowledge of the NHIS were satisfied compared with those with poor knowledge (74.9 vs. 63.2%; P = 0.06).

Table 5: Participants' perceptions of the responsiveness of services within the NHIS at UNTH according to their socio-demographic characteristics (n=386)

Variable	Not Responsive n (%)	Responsive n (%)	X^2	P -value
Total	178 (48.4)	190 (51.6)		
Age group (years)			17.13	0.001
≤30	7 (53.8)	6 (46.2)		
31-40	77 (52.0)	71 (48.0)		
41-50	78 (54.5)	65 (45.5)		
≥50	16 (25.0)	48 (75.0)		
Gender			5.98	0.014
Female	88 (42.7)	118 (57.3)		
Male	90 (55.6)	72 (44.4)		
Marital status			2.01	0.571
Single	33 (47.1)	37 (52.9)		

Married	126 (47.5)	139 (52.5)		
Divorced/Separated	16 (61.5)	10 (38.5)		
Widowed	3 (42.9)	5 (57.1)		
Religion			2.83	0.243
Christian	171 (47.8)	187 (52.2)		
Islam	5 (62.5)	3 (37.5)		
Others	2 (100)	0 (0)		
Education			7.88	0.02
Primary	0 (0)	4 (100)		
Secondary	30 (62.5)	18 (37.5)		
Tertiary	148 (46.8)	168 (53.2)		
Residence			10.40	0.001
Rural	41 (67.2)	20 (32.8)		
Urban	137 (44.6)	170 (55.4)		
Family size			11.30	0.001
≤ 4	131 (54.8)	108 (45.2)		
> 4	47 (36.4)	82 (63.6)		
Household Income (Naira)			2.95	0.09
≤ 100, 000	48 (41.7)	67 (58.3)		
> 100, 000	130 (51.4)	123 (48.6)		

Table 5 summarises the clients experience and perceptions of the responsiveness of services within the NHIS services at UNTH according to their socio-demographic characteristics. Overall, 190 (51.6%) of respondents indicated that outpatient services offered within the NHIS were responsive to their needs, and “dignity” 258 (70.1%) and “communication” 252 (68.5%) ranking highest whereas “choice of provider” 143 (38.9%) and “autonomy” 199 (54.1%) were relatively ranked the lowest. A higher proportion of older clients perceived the services to be responsive to their needs compared with younger individuals (P = 0.001). A higher proportion of females compared with males perceived that services are more responsive to their needs (57.3 vs 44.4%; P =0.014). There was no significant difference in the proportion of clients who perceived that services are more responsive to their needs according to their marital status (P = 0.571) and religion (P = 0.243). There was a significant difference according to the educational level of the clients and the perception of whether or not the services are responsive to their needs (P = 0.02). A higher proportion of clients’ resident in an urban area compared with those who live in the rural area perceived that services are more responsive to their needs (55.4 vs 32.8%; P = 0.001). Also, a higher proportion of clients with a family size of more than four persons compared with those who live in household with four or less individuals perceived that services are more responsive to their needs (63.6 vs 45.2%; P = 0.001).

Table 6: Participants' perceptions of the responsiveness of services within the NHIS Services at UNTH according to their varying contextual factors (n=386)

Variable	Not Responsive n (%)	Responsive n (%)	X^2	P -value
Duration in the NHIS (years)			5.38	0.250
1	33 (56.9)	25 (43.1)		
2	22 (55.0)	18 (45.0)		
3	21 (55.3)	17 (44.7)		
4	30 (47.6)	33 (52.4)		
≥5	72 (42.6)	97 (57.4)		
Number of hospital visits in the past 12 months			15.37	0.004
1	29 (52.7)	26 (47.3)		
2	46 (47.9)	50 (52.1)		
3	64 (57.7)	47 (42.3)		
4	24 (49.0)	25 (51.0)		
≥5	15 (26.3)	42 (73.7)		
Distance to the hospital			0.074	0.08
1 hour or less	169 (49.7)	171 (50.3)		
More than 1 hour	9 (32.1)	19 (67.9)		
Duration of service (years)			36.69	<0.001
<10	111 (53.1)	98 (46.9)		
10-19	63 (56.8)	48 (43.2)		
20-29	4 (13.8)	25 (86.2)		
≥ 30	0 (0.0)	19 (100)		
Ever been referred to another NHIS facility			11.91	0.001
No	162 (52.3)	148 (47.7)		
Yes	16 (27.6)	42 (72.4)		
Number of dependents			3.47	0.062
≤4	170 (49.7)	172 (50.3)		
>4	8 (30.8)	18 (69.2)		
Willing to return to UNTH for medical care			22.39	<0.001
No	36 (81.8)	8 (18.2)		
Yes	142 (43.8)	182 (56.2)		
Willing to refer friends/relative to UNTH for NHIS services			16.53	0.001
No	44 (72.1)	17 (27.9)		
Yes	134 (43.6)	173 (56.4)		
Will prefer to pay out-of-pocket for same services at UNTH			3.37	0.066
No	124 (51.9)	115 (48.1)		
Yes	54 (41.9)	75 (58.1)		

Knowledge of NHIS			0.17	0.77
Poor	29 (50.9)	38 (49.1)		
Good	149 (47.9)	162 (52.1)		

Table 6 shows that there was no difference in the proportion of clients who perceived the services to be responsive according to their duration of enrolment in the NHIS (P = 0.25). Also, a higher proportion of clients who had a higher number of visits (≥5) in the past 12 months perceived the services to be responsive compared to those with only one visit (73.7 vs. 47.3%; P = 0.004). There were no differences in the proportion of clients who perceived the services to be responsive according to the distance of the hospital to their homes (P = 0.08). Also, there was a statistically significant difference in the proportion of clients who perceived the services to be responsive according to their duration of work in the civil service. All the clients who had worked for (≥ 30) years perceived the services to be responsive to their needs compared with clients who had worked for (<10) years (100 vs. 46.9%; P <0.001). A higher proportion of clients who had ever been referred to another NHIS facility perceived the services to be responsive to their needs compared with those who were not (72.4 vs 47.7%; P = 0.001).

Furthermore, a higher proportion of clients willing to return to UNTH perceived services to be responsive to their needs compared with those not willing to return to UNTH for their medical care (56.2 vs 18.2%; P <0.001). A higher proportion of clients who were willing to refer their friends or relatives to UNTH for care perceived services to be responsive to their needs compared with those not willing to refer them (56.4 vs 27.9; P= 0.001). Overall, there were no differences in the perceived responsiveness of NHIS services according to clients level of education (P = 0.77).

Table 7: Multivariable logistic regression analysis of demographic and contextual factors associated with dissatisfaction with NHIS Services at UNTH (n =386)

Variable	Not Satisfied n (%)	Crude OR (95% C.I.)	Adjusted OR (95% C.I.)	Adjusted P -value
Age group (years)				
≤30	7 (53.8)	1	1	
31-40	46 (31.1)	0.39 (0.12 – 1.21)	0.22 (0.15 – 2.66)	0.62
41-50	31 (21.7)	0.24 (0.07 – 0.76)	0.39 (0.08 – 1.88)	0.24
51-60	11 (19.6)	0.21 (0.06 – 0.75)	0.18 (0.03- 1.16)	0.07
≥60	4 (50.0)	0.86 (1.47 – 5.00)	1.0 (0.08 0 12.5)	0.99
Gender				
Female	53 (25.7)	1	1	
Male	46 (28.4)	1.15 (0.72 – 1.82)	1.18 (0.69 – 2.04)	0.54
Residence				
Rural	16 (26.2)	1	1	
Urban	83 (27.0)	1.04 (0.56 – 1.94)	1.03 (0.47 – 2.29)	0.94
Family size				
≤ 4	72 (30.1)	1.63 (0.98 – 2.70)	2.04 (1.07 – 4.10)	0.04

> 4	27 (20.9)	1	1	
Household Income (Naira)				
≤ 100, 000	39 (33.9)	1.65 (1.02 – 2.68)	0.95 (0.50 – 1.83)	0.88
> 100, 000	60 (23.7)	1	1	
Duration in the NHIS (years)				
1	22 (37.9)	2.43 (1.27 – 4.65)	2.03 (0.87 – 4.78)	0.10
2	13 (32.5)	1.91 (0.89 – 4.09)	1.38 (0.51 – 3.68)	0.53
3	15 (39.5)	2.59 (1.22 – 5.49)	2.31 (0.94 – 5.72)	0.07
4	15 (23.8)	1.24 (0.62 – 2.48)	1.44 (0.65 – 3.21)	0.37
≥5	34 (20.1)	1	1	
Duration of service (years)				
<10	52 (24.9)	1	1	
10-19	36 (32.4)	1.45 (0.87 – 2.40)	3.33 (1.60 – 6.94)	0.001
20-29	4 (13.8)	0.48 (0.16 – 1.45)	1.85 (0.34 – 10.14)	0.48
≥ 30	7 (36.8)	1.76 (0.66 – 4.71)	3.23 (0.66 – 15.89)	0.15
Number of dependents				
≤4	88 (25.7)	1	1	
>4	11 (42.3)	2.12 (0.94 – 4.78)	3.21 (1.14 – 9.02)	0.03
Willing to return to UNTH				
No	29 (65.9)	7.02 (3.56 – 13.81)	2.98 (1.10 – 8.26)	0.04
Yes	70 (21.6)	1	1	
Willing to refer friends/relative				
No	37 (60.7)	6.09 (3.40 – 10.9)	2.63 (1.04 – 6.60)	0.04
Yes	62 (20.2)	1	1	
Knowledge of NHIS				
Poor	21 (36.8)	1.74 (0.96 – 3.16)	1.29 (0.61 – 4.21)	0.51
Good	78 (25.1)	1		

Table 7 shows the factors associated with dissatisfaction with NHIS services. Thus, having a family size of ≤4 was a risk factor for dissatisfaction with the NHIS services at UNTH (aOR 2.04; 95% C.I. 1.07 – 4.10). Also, having worked for 10 – 19 years in the civil service was a risk factor for dissatisfaction with the NHIS services at UNTH (aOR 3.33 95% C.I. 1.60 – 6.94). The study also found that having more than four dependents was a risk factor for dissatisfaction with the NHIS services at UNTH (aOR 3.21; 95% C.I. 1.14 – 9.02). Unwillingness to return to UNTH for medical care was associated with dissatisfaction with the NHIS services at UNTH (aOR 2.98; 95% C.I. 1.10 – 8.26). However, having a poor knowledge of the NHIS was not a risk factor of dissatisfaction with the NHIS (aOR 1.29; 95% C.I. 0.61 – 4.21).

Table 8: Multivariable logistic regression analysis of demographic and contextual factors associated with non-responsiveness of services within the NHIS at UNTH (n=386)

Variable	Not Responsive n (%)	Crude OR (95% C.I.)	Adjusted OR (95% C.I.)	Adjusted P -value
Age group (years)				
≤30	7 (53.8)	3.5 (1.03 – 11.96)	0.87 (0.12 – 6.28)	0.89
31-40	77 (52.0)	3.25 (1.70 – 6.24)	1.78 ()0.56 – 5.71	0.33
41-50	78 (54.5)	3.60 (1.87 – 6.93)	1.95 (0.67 – 5.65)	0.22
≥50	16 (25.0)	1	1	
Gender				
Female	88 (42.7)	1	1	
Male	90 (55.6)	1.68 (1.11 – 2.54)	2.32 (1.37 – 3.90)	0.002
Residence				
Rural	41 (67.2)	2.54 (1.42 – 4.54)	3.15 (1.18 – 8.41)	0.02
Urban	137 (44.6)	1	1	
Education				
Primary/Secondary	30 (57.7)	1.55 (0.86 – 2.80)	1.09 (0.34 – 3.51)	0.89
Tertiary	148 (46.8)	1	1	
Family size				
≤ 4	131 (54.8)	2.12 (1.36 – 3.29)	1.11 (0.58 – 2.14)	0.75
> 4	47 (36.4)	1	1	
Household Income (Naira)				
≤ 100, 000	48 (41.7)	1	1	
> 100, 000	130 (51.4)	1.48 (0.95 – 2.30)	1.45 (0.73 – 2.88)	0.29
Duration in the NHIS (years)				
1	33 (56.9)	1.78 (0.97 – 3.25)	2.17 (0.92 – 5.14)	0.79
2	22 (55.0)	1.65 (0.82 – 3.29)	0.89 (0.33 – 2.36)	0.81
3	21 (55.3)	1.66 (0.82 – 3.38)	0.62 (0.24 – 1.58)	0.31
4	30 (47.6)	1.23 (0.69 – 2.19)	0.90 (0.39 – 2.10)	0.81
≥5	72 (42.6)	1	1	
Hospital visit in the past 12 months				
1	29 (52.7)	3.12 (1.41 – 6.90)	1.64 (0.57 – 4.74)	0.36
2	46 (47.9)	2.58 (1.26 – 5.25)	3.68 (1.48 – 9.15)	0.005
3	64 (57.7)	2.81 (1.89 – 7.67)	5.80 (2.37 – 14.17)	<0.001
4	24 (49.0)	2.69 (1.19 – 6.06)	1.87 (0.63 – 5.57)	0.26
≥5	15 (26.3)	1	1	
Duration of service (years)				
<10	111 (53.1)	12.46 (4.32 – 35.93)	7.48 (1.73 – 32.27)	0.007
10-19	63 (56.8)	14.44 (4.85 – 42.95)	15.95 (4.06 – 62.78)	<0.001
20-29	4 (8.3)	1	1	
Number of dependents				
≤4	170 (49.7)	2.22 (0.94 – 5.25)	2.47 (0.75 – 8.14)	0.14

>4	8 (30.8)	1	1	
Willing to return to UNTH for medical care				
No	36 (81.8)	5.77 (2.6 – 12.80)	3.22 (0.88 – 11.76)	0.08
Yes	142 (43.8)	1		
Willing to refer friends/relative to UNTH for NHIS services				
No	44 (72.1)	3.34 (1.83 – 6.11)	0.68 (0.28 – 1.66)	0.40
Yes	134 (43.6)	1	1	
Will prefer to pay out-of-pocket for same services at UNTH				
No	124 (51.9)	1.50 (0.97 – 2.31)	1.20 (0.69 – 2.06)	0.52
Yes	54 (41.9)	1	1	
Knowledge of NHIS				
Poor	29 (50.9)	1.13 (0.64 – 1.98)	0.85 (0.38 – 1.90)	0.69
Good	149 (47.9)	1	1	

Male gender was a predictor of non-responsiveness of services within the NHIS at UNTH (aOR 2.32; 95% C. I. 1.37 – 3.90) as shown in Table 8. Also, rural residence was a risk factor for the non-responsiveness of services within the NHIS at UNTH (aOR 3.15; 95% C. I. 1.18 – 8.41). Also, having attended the UNTH twice (aOR 3.68; 95% C.I.1.48 – 9.15) or thrice (aOR 5.80; 95% C. I. 2.37 – 14.17) were predictors of non-responsiveness of services within the NHIS at UNTH. Also, having worked in the civil service for (<10) years (aOR 7.48; 95% C.I. 1.73 – 32.27) or for (10 – 20 years (aOR 15.95; 95% C.I. 4.06 – 62.78) were predictors of non-responsiveness of services within the NHIS at UNTH.

Discussion

This study showed that the level of satisfaction with the national health insurance and its components are good. Almost three-quarter of the participants were satisfied (73.1%) with the quality of services received at the facility. Several studies in Nigeria have assessed clients' satisfaction with the NHIS due to its positive impact on access and reduction in the financial burden to users. Also, client satisfaction with healthcare is predictive of their likelihood of continuing use of available healthcare; compliance with medical instruction and improvement in overall coverage and effectiveness of care. Our finding was similar to the findings of other studies in Umuahia that reported an overall satisfaction score 66.8% (Iloh *et al.*, 2012); in Keffi that reported a rate of 63.1% (Daramola *et al.*, 2017); in Jos where a rate of 61.5%

was reported (Onyedibe *et al.*, 2012); in Minna where a rate of 75.8% was reported (Abdulsalam & Khan,2017); and in Abuja where 54.8% of the clients were satisfied (Oladipupo *et al.,* 2017). Furthermore, another study on services offered within the NHIS at a secondary and a tertiary hospital in Rivers State Nigeria, revealed that there was high level of satisfaction among the clients (Osiya *et al.*, 2017).

The high rate of satisfaction with services within the NHIS observed in our study are also in concordance with the international literature. In Ghana, about 76% of the insured clients were satisfied with the health care services provided them (Dalinjong & Laar, 2012). In Turkey, 53.3% of insured users were satisfied with the services received (Jadoo *et al.*, 2012). In Slovenia, insured participants reported a high rate of satisfaction (86.4%) with the services received and in Romania the national health insurance scheme received 78% public satisfaction rate (Bara *et al.*, 2012). Furthermore, in South Korea, overall patient satisfaction rate was 63.3% (Chun *et al.*, 2009). Thus, the finding of the present study agrees with the reports from these countries.

In the domain of responsiveness, this study also showed that the choice of a health-care provider and autonomy were the worst performers. This finding is not surprising in a health system where, on presentation to a clinic, health care provider assigns a patient to a physician without involving the patient in making the choice of the provider. This finding is consistent with an earlier study with participants from Enugu and Abia, and reports from Zaria and Lagos which indicates that choice of health provider were the worst domains of responsiveness (Adesanya *et al.*, 2012; Mohammed *et al.*, 2013; Ughasoro *et al.*, 2017). Our finding is also consistent with previous studies in Ethiopia, Iran. Thailand and China which showed “choice of healthcare provider” as the worst performing domain (Liabsuetrakul *et al.*, 2012; Yakob & Ncama, 2017; Chao *et al.*, 2017; Daneshkohan *et al.,* 2018). Although in the prospectus of the Nigeria NHIS, patients have the opportunity to choose and change health care providers, this is rarely observed. One of the major challenges is that the scheme covers those employed in the formal sector which constitutes below 5% of the entire workforce (NHIS, 2005). Moreover, due to the limited number of disease conditions covered by the NHIS policy and the rigorous logistics of accessing some highly specialised care within the scheme, some people choose not to use the NHIS. Thus, as long as the patient continues to receive care from the facility, he/she remains a patient of the same provider, with little or no room to change the health care provider. This reduces the providers’ effort to satisfy patients’ needs, leading to dissatisfaction in the services provided (Olugbenga-Bello *et al.,* 2010). In addition, although there is an option to switch provider if patients were not satisfied, the mechanism for doing this is not seamless.

Additionally, this study found that the autonomy domain – which indicates involvement of the patient in their medical decision making – was also one of poorly scored domains. Previous studies in different parts of Nigeria reports that clients highly rate the autonomy domain to be very important but they are poorly scored (Ughasoro *et al.*, 2017). Similarly, the autonomy domain was rated worst by clients in Bangladesh and Iran (Hamid & Begum, 2018; Bazzaz *et al.*, 2015; Daneshkohan *et al.,* 2018). The poor performance of autonomy occurs because there is high information asymmetry in the level of knowledge between patients and health workers. Thus, the results of this study underscore the need to observe the code of medical ethics that recognizes patients' autonomy, the need to give patients adequate education and to obtain their informed consent during health service delivery. Fundamental to this is that the health care provider should explain to the patient in reasonable detail all the tests and treatment he/she is being subjected to and seek approval before proceeding with the treatment.

The findings of this study showed that 'dignity' was one of the best performers in the responsiveness domain. In Nigeria, dignity of clients involved in the NHIS is explicitly considered as an important element of responsiveness within health care services (Ughasoro *et al.,* 2017). Similarly, as observed by previous studies in the country, this study found that the respondents in this survey rated their contentment with this domain highest in the NHIS. In accordance with previous reports elsewhere, the domain of dignity assures users of health care services that they would receive care in a respectful, caring and non-discriminative manner (Liabsuetrakul *et al.,* 2012; Yakob & Ncama, 2017; Chao *et al.,* 2017; Daneshkohan *et al.,* 2018; Hamid & Begum, 2018). Thus, the findings of this study indicate that the clients were treated with some respect by providers of health care services at UNTH.

In this study, the communication domain was also one of the best performers. This is consistent with reports in other parts of Nigeria where communication was found to be of high importance to clients (Adesanya *et al.*, 2012; Ughasoro *et al.,* 2017). Studies in Ethiopia, China and Bangladesh also rated this domain high (Chao *et al.,* 2017; Yakob & Ncama, 2017; Hamid & Begum, 2018). Furthermore, previous reports indicate that this communication need to be carried out using a comprehensive approach which allows the patient to seek further clarifications through follow-up questions (Marcus, 2014; Frankel & Sherman, 2015). A previous study in Zaria found that the insured users of NHIS were not pleased with the domain because they felt that the health care providers did not listen to them with sufficient concern related to their illness and also did not always give the chance to ask follow-up questions (Mohammed *et al.*, 2013). The difference between this and our finding may be due to differences in the level of education of the clients in our survey and those in Zaria.

Overall, just over half of the participants (51.6%) considered that the health services they received was responsive to their needs. The findings of this study identified gaps in health service responsiveness performances, indicating that they failed to meet the expectations of almost half of the clients receiving care within the NHIS regarding how they should be treated and the convenience of the environments in which they were treated. A qualitative study carried out in the study setting suggested that the way the insured users are treated might have affected the perceptions of clients towards responsiveness and their satisfaction with services (Etiaba *et al.*, 2018). In general, this present study suggests the need to improve the responsiveness performances in UNTH which may require targeted interventions like training of healthcare workers, supportive supervision and on-site mentoring and technical assistance.

In previous studies in high-income settings, demographic characteristics such as age and gender have been consistently found to be associated with satisfaction within the national health insurance scheme (Batbaatar *et al.*, 2017). These studies show that older clients were more satisfied with service provision than the younger clients. There is a direct relationship between satisfaction of users and age which has been demonstrated by several studies (Mohammed *et al.,* 2011; Jadoo *et al.,* 2012; Batbaatar *et al.,* 2017). In this study, older age was significantly associated with rate of satisfaction, but after adjustments were made for confounders this relationship was lost. It may be that the relationship between older age and satisfaction was being modified due to the effect of confounders. Our findings were consistent with the reports from Zaria, Uyo, Port Harcourt and Ibadan; but disagrees with the findings of Daramola *et al.* (2017) which showed that younger people (44.5%) reported a high level of satisfaction than older ones (26.5%) (Mohammed *et al.,* 2011; Osiya *et al.,* 2017; Akpan *et al.*, 2018).

In this study, gender was not a risk factor for satisfaction with services received. This agrees with the findings in Zaria, Uyo, Ibadan and Port Harcourt and suggest that there were no gender differences on how health services are delivered to clients in this setting (Mohammed *et al.*; 2011; Osiya *et al.*, 2017; Gbadamosi & Famutimi, 2017; Akpan *et al.,* 2018). In Keffi, it was found that a higher proportion of males (49.6%) had high level of satisfaction than the females (27.6%) (Daramola *et al.*, 2017). Studies in Turkey, Qatar and Romania showed that the highest level of satisfaction was among women and they were more than 1.5 times more likely to be extremely satisfied with services received compared to their male counterparts (Kersnik, 2011; Jadoo *et al.*, 2012; Ali *et al.*, 2015). The differences observed may be due cultural and contextual differences between the study settings.

In addition, the study found that dissatisfied clients had unwillingness to return to the health facility, and unwillingness to refer a family member or

relative to the hospital. This indicates that dissatisfaction with services received within the NHIS at UNTH was high that some client will refuse to recommend the hospital probably because the services fell below the standard expected by the clients and this could make clients to abandon a well-recognised tertiary hospital and may even discourage their friends and relative from visiting the facility for medical care. The reasons for this may be due to system-level factors. This is consistent with a recent study which showed that client satisfaction was positively influenced by physician-related factors and system-related factors but was uninfluenced by patient related factors (Akpan *et al.*, 2018). Some of these issues causing dissatisfaction are expected to be addressed at the policy making level, the service providers and enrollees have little to do to correct the problems; however, some enrollees will not mind increasing their contributions into the scheme in as much as these services would be covered in the benefit package (Olugbenga-Bello *et al.,* 2010). Rao (2008) proposes that there could be perverse interests to provide low quality of care over-diagnose or under-treat for making profits, but if there is a strong monitoring and evaluation it would solve some of these issues that cause dissatisfaction. Some of these concerns has been alluded to by the clients' who participated in a qualitative study in Enugu (Etiaba *et al*., 2018).

In this study, male gender, rural residence, having attended the facility twice or thrice in the last one year, within 20 years wok experience in the civil service and unwillingness to confidently refer a family member or relative to the hospital were all independently associated with non-responsiveness of the services offered within the NHIS. Previous studies have identified a number of factors affecting responsiveness in other settings such as: age, religion, type of facility, employment status of clients, perceived quality of care, perceived health and out-of-pocket expense (Chao *et al.,* 2017; Yakob & Ncama, 2017). A previous study in Nigeria suggested that gender is associated with responsiveness (Mohammed *et al.*, 2013). The reason why non-responsiveness of the health system was higher in males than females may because of a higher level of expectations of service delivery in males due to probably cultural and contextual factors. Furthermore, the reason why non-responsiveness was higher among rural residents indicates that the organisation of the health services within the facility did not meet the expectations of these group of clients. Clients who did not regularly visit the hospital (i.e., 2 or 3 times in the past year) and those who had worked in the civil service for less than 20 years were more likely to experience non-responsiveness of services probably because they want to quickly attend the hospital and return to their work places but this and other high expectations from the NHIS services were not met. Therefore, there is a need to develop policy solutions locally to address these issues.

Conclusion

From the findings of the study, majority (73.1%) of the clients were satisfied with the services, and satisfaction rates varied with the socio-demographic and contextual factors. Also, above average (51.6%) of the clients considered the services to be responsive to their needs. The "dignity" and "communication" domains ranked highest whereas "choice of provider" and "autonomy" domains were relatively ranked the lowest. Responsiveness rates varied with the socio-demographic and contextual factors.

Based on the findings, there is a need to sustain the education of clients of the NHIS regarding the knowledge of the scheme and the benefit packages; Quality time should be devoted on informing patients about their diagnosis, the tests ordered and the reasons for ordering the tests; Reform strategies should target health care providers' politeness toward clients, and decreased waiting at hospitals using specified appointment times; and the identified at-risk groups should be given considered and given priority attention during outpatient clinic visits.

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